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ACORN USER

JANUARY 1986

SPECTRAMANIA:

Zippy game for
Electron and BBC

LOGO SOFTWARE:

Joe Telford writes
a wordprocessor

BBC B+ PROGRAMS:

Our advanced
user's guide

BASIC AIDS:

The hard facts
about debuggers

WIN AT ELITE:

Secrets of the
Commander files

SUPER PAINTING

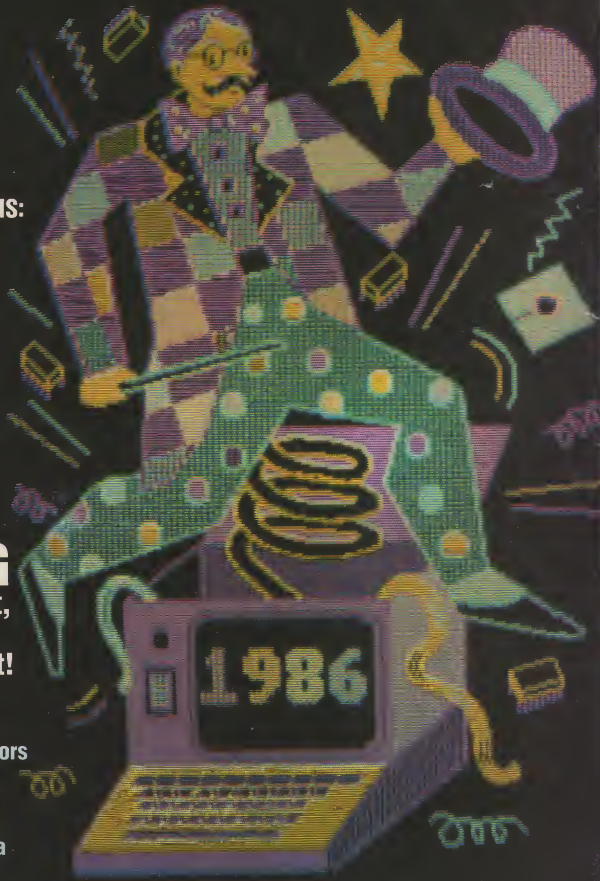
Forget the rest,
our graphics
program's best!

COMPETITION

Three Taxan monitors
to be won

COUPON OFFER

Save £20 on a Kaga
NLQ printer



ACORNUSER

ISSUE No 42 JANUARY 1986

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SPECTRAMANIA

73

A fast arcade-style game by David Acton for you to type in and play. You'll have hours of fun guiding Ray Robot around the Spectramaze but beware of the evil Smiffs

LOGO WORDPROCESSOR

77

Joe Telford helps you develop your own wordprocessor to use with the Logo language that's a favourite of educationalists and widely used in schools, but mainly known for its Turtle graphics

3D GRAPHICS

82

McGregor and Alan Watt conclude their four-part series on graphics for the BBC micro and Electron by revealing two ways to create three dimensional solids on screen

UPER PAINTER

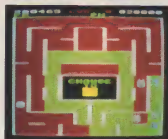
86

This superb painting package is quite simply the best around! Jonathan Ingalls has combined popular colour-filling and painting programs into this bumper program

LETISM

91

Skirrow and Paul Springate help you succeed at Acornsoft's best-selling game, *Elite*, by fair means or foul, and reveal how to create an alien commander



COVER



Cover illustration by Jonathan Ingalls from a screenshot created with the *Super Painter* program in this issue

NEXT MONTH

SHRINKING SCREENS

Save precious memory by creating smaller screens
Software for sideways ROMs
Make the most of the B+ and B+128's extra memory
Add extra commands to Basic
Members of Ultravox review the Umi music interface

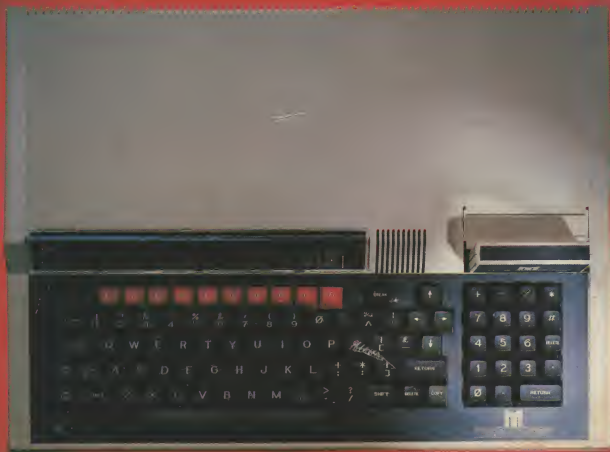
BBC MICRO • ELECTRON • ATOM

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ACORN USER

FEBRUARY 1986

EXCLUSIVE



NEW BBC MICRO

ACORN USER

ISSUE No 43 FEBRUARY 1986

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NEW USERS

HINTS AND TIPS:

Martin Phillips discusses how to make on screen colour combinations legible

FIRST BYTE:

Faster, faster - Tessie Revivis shows the many simple ways of speeding up your micro

BUSINESS

BUSINESS NEWS:

All the latest for users of Acorn computers in business, plus half-price Mallard Basic offer

ON TO THE DATA:

Roger Carus concludes his advice on how to set up a business system

CP/M CORNER:

A bumper crop of tips for CP/M users from Edward Brown

EDUCATION

EDUCATION NEWS:

What's new in the world of micros in the classroom from Nick Evans

DABBLING WITH DATABASES:

Chris Drage and Nick Evans describe the value and variety of databases for schools

REVIEWS

GAMES:

Ultimate's *Alien-8*; *The Secret Diary of Adrian Mole* from Level 9 and *Phantom Combat* from Doctorsoft

GAMES:

Citadel from Superior; *Atic Atac* by Ultimate and Micro Power's *Gauntlet*

SOFTWARE AND BOOKS:

Speech; *Microelectronics A to Z*; *Within the BBC Microcomputer*; *The BBC Microcomputer in Control*

BOOKS:

Guide to the BBC ROM; *Winning at the Races*; two 'Byte Brothers' books and puzzle books for your micros

UMI MUSICAL INTERFACE:

Peter Wood and Chris Cross of Ultravox recommend this inexpensive music system

BOOKS:

Wordwise Plus: a User's Guide; *Advancing with the Electron*; *BBC Micro: Music Master Class*

JOYSTICK JARGON:

Chris Drage's guide to the how, what, why and which of joysticks

DISC DRIVE UPDATE:

Don't upgrade to disc until you've read Bruce Smith's latest report from the front

REGULARS

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EXCLUSIVE NEW BBC micro

The Master, Acorn's new BBC micro, is launched this month. Internal second processors giving 16 and 32-bit computing are a major feature. Details on pages 7, 10, 11 and 17

FEATURES

INTO THE SHADOW RAM

74
Joe Telford explains what shadow RAM is and puts forward his ideas on how to use this extra memory and the facilities offered by the B+ and B+128

SHRINKING SCREENS

80
This technique has been used in several recent games and Robert O'Leary shows you how to save precious memory by shrinking the area of the screen used for graphics

EXTENDING BASIC

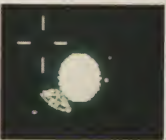
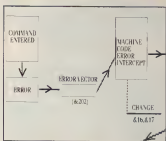
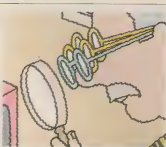
83
BBC Basic offers a wide and versatile range of commands and functions but there comes a time when every programmer needs more, and Michael Ginns has found a way to incorporate them into the language

DA DOO ROM ROM

89
Steve Pieton describes how to write very long machine code programs for use in sideways RAM with all the advantages of speed and none of the bother of EPROMs

CHEAT AT ELITE

95
This *Elite* commander editor allows you to do well at Acornsoft's bestselling game without having to gather credits. Paul Springate and Paul Skirrow are your fellow conspirators



COVER



Cover photograph by
John Barlow

NEXT MONTH

ACORN'S NEW MASTER

what it can do
Learn about music on the BBC
micro and Electron
Gaining extra program memory
from sideways RAM
Speech systems reviewed
News of a super music
competition
Chris Drage and Nick Evans
look at adventures and authoring
languages

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MARCH 1986

DISC EDITOR:

Software to save programs by

TUNEMAKER:

Score with our type-in composer

SAVE MEMORY:

Bigger programs with sideways RAM

ADVENTURES:

Stimulation from simulation



PIXEL POWER:

Sharpen up your pictures

THE BBC MASTER

Better value than any other micro, says Bruce Smith



ACORN USER

ISSUE No 44 MARCH 1986

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Tony Quinn

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Bruce Smith

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NEW USERS

HINTS AND TIPS:

Martin Phillips explains how discs store data and presents a disc mode editor

FIRST BYTE:

How to go about getting an article printed in *Acorn User* is Tessie Revivis' theme

BUSINESS

BUSINESS NEWS:

All the latest information for users of Acorn computers in business

STAR COMMANDS IN CP/M:

Alistair Birch's patch offers a sleek and simple solution to using star commands in CP/M

EDUCATION

EDUCATION NEWS:

What's new in the world of micros in the classroom from Nick Evans

ADVENTUROUS AUTHORIZING:

Chris Drage and Nick Evans explain the educational value of adventure game generators

REVIEWS

GAMES:

Monopoly from Leisure Genius; *Silversoft's Bored of the Rings* and *Enthar Seven* by Robico

GAMES:

Micro Power's *Dr Who* and *the Mines of Terror*; *Yie Ar Kung Fu* by Imagine and Alligata's *Olympic Decathlon*

PMS 64K RAM MODULE:

Simon Williams looks at a free-standing easy-to-use extension to the Beeb's memory

MEMOCO ROBOTIC ARM:

This fascinating device is a good introduction to serious robotics says Richard Sargent

AMX SUPER ART:

Jonathan Inglis introduces you to the updated graphics package for the AMX mouse

A LOGICAL LANGUAGE:

Acornsoft's MicroProlog, geared to artificial intelligence, comes under Joe Telford's scrutiny

BOOKS:

Creative Sound; *Mastering Music*; *Using Sound and Speech on the BBC Micro*; *Writing Educational Programs*

SOFTWARE:

Practical II spreadsheet package and *Mupados Recorder Tutor*

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Indexes to articles, programs and authors, compiled by Paul Nash

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FEATURES

MASTER WORK

73

Bruce Smith conducts a revealing in-depth examination of the micro at the heart of Acorn's new series – the Master 128 – and looks at its first upgrade board, the Turbo co-processor



LISTEN TO THE MUSIC

78

A must for anyone learning music – or use it just for fun. Colin Atkins' *Tunemaker* program allows you to enter music on an on-screen stave and hear it played back



SIDEWAYS STORAGE

85

You don't need an expensive second processor to be able to run long programs in your micro – moving variables, text and subroutines to sideways RAM is the answer says Mike Rawlings



THE LAST DETAIL

88

Mike Williams' pixel editor listing magnifies an area of the screen to help you refine your graphics down to the smallest detail and bring a professional finish to your graphics screens



6502 SPECIAL

91

Extend the powerful HiBasic assembler in the 6502 second processor with Martin Chaplin's listings – plus you can also learn about the Master's new assembler instructions



COVER



Cover photograph by
Phil Jude

NEXT MONTH

BUSINESS SPECIAL

Your guide to the options available for BBC users
Our hints and tips for April Fool tricks you can play
Joe Telford presents an electronic book for children
How to extend Basic from disc and sideways RAM

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ACORN USER

APRIL 1986

BASIC EXTRA:

Write your
own commands

SPRAY PAINTING:

3D graphics
without maths



£1500 BBC
music system
must be won

ELECTRON USERS:

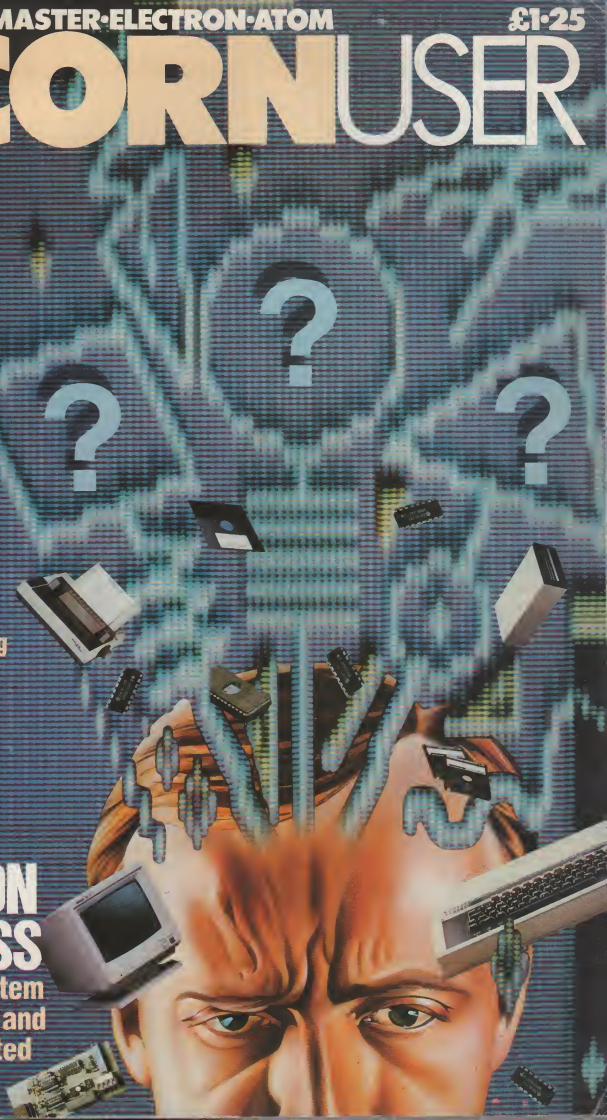
Take the pain
out of programming

MASTER OPTIONS:

Our guide to
system upgrades

FOCUS ON BUSINESS

Choosing a system
Plus: Pear Tree and
InterSheet tested



ACORN USER

ISSUE No 45 APRIL 1986

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Our special nine pages of information for business micro users start here. Our authors advise on the best upgrades for your office, explain operating systems and review the Pear Tree KBL128 PC.

COMMANDING IDEAS

75

Michael Ginns reveals how readers with disc drives or sideways RAM can add their own commands to the Basic language – and his utility programs are all written in Basic

LEARNING BY THE BOOK

80

Turn a cheap add-on, the Tandy Electronic Book, into a concept keyboard to educate and amuse children with Joe Telford's innovative ideas and software

SPRAY AWAY

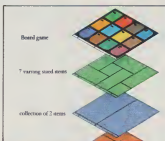
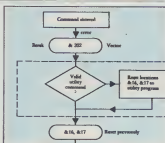
88

Peter Voke shows you how to create professional-looking three dimensional graphics without the mathematics – using spray painting techniques and angled lighting

THE GREAT MUSIC COMPETITION

97

Win a £1500 complete music system – Master 128 with monitor, disc drive, UM12B 16 channel sequencer and Casio CZ101 keyboard – in our big competition



COVER



Cover illustration by Paul Allen

NEW ADDRESS

Acorn User has moved offices. Our new address is Redwood Publishing, 142-143 Drury Lane, London WC2B 5TF. The phone number remains 01-836 2441.

NEXT MONTH

EDUCATION SPECIAL
Guide to software by subject and age range
How to set up a satellite ground station
Mandelbrot graphics and how to generate them
Faster data transfer on 6502 second processors

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ACORN USER

MAY 1986

TAPE TO DISC:

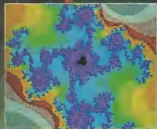
Sorting out
the problems

WORDPROCESSING:

Avoid mistakes
with our advice

ROM/RAM BOARDS:

We answer all
your questions



MANDELBROT SET:

Colour displays
for BBC/Electron

REVIEWS:

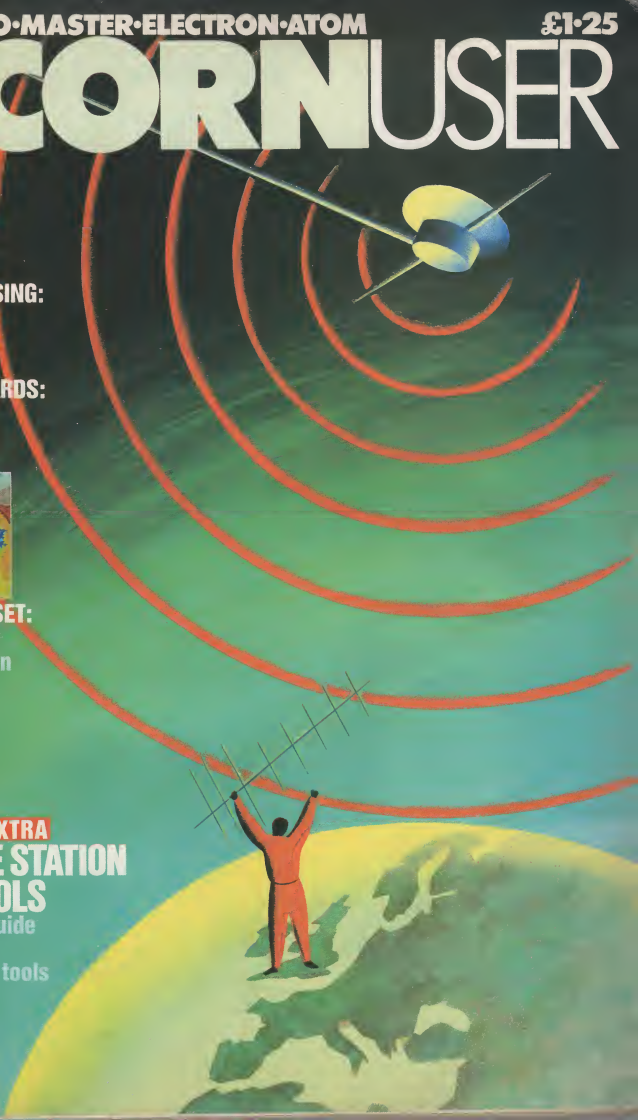
Fleet St Editor,
Wordwise aids

EDUCATION EXTRA

SATELLITE STATION FOR SCHOOLS

PLUS: 7-page guide
to software

AND: Micros as tools



ACORN USER

ISSUE No 46 MAY 1986

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IT'S QUICKER BY TUBE

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Martin Chaplin shows how to speed up data transfer across the Tube by including software in the Beeb and second processor to enable them to communicate with each other



EXPLORE THE MANDELBROT SET

80

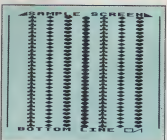
Generate amazing graphics using the Mandelbrot set technique – when you enlarge a minute area of a shape more and more detail is revealed – with David Johnson-Davies



DIY DUMPING

85

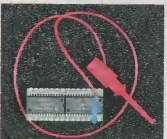
Our printer expert George Hill shows you how to dump user-defined characters on Epson and Epson-compatible printers and presents a printer dump program for character screens



COMPATIBILITY QUEST

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Chris Drage answers readers' questions on choosing an expansion board. And on page 96 Simon Williams launches the *Acorn User* readers' ROM compatibility quest



COVER



Cover illustration by
Paul Leith

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NEXT MONTH

COMMUNICATIONS SPECIAL

Up-to-date information and ideas on communications
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Communicator reviewed

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JUNE 1986



FOOTBALL FEVER:
World Cup guide
on your micro

DISC FILING:
Software utilities
for Acorn's ADFS

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Fleet Street and
Pagemaker verdict

NETWORK NOTES:
Help for users
from our expert

BASIC BEATERS?:
Seven languages
tested by Tak

COMMS IN ACTION

Radio software
BBC viewdata
Modem programs

THE BEST-SELLING
BBC MICRO
MAGAZINE

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NEW USERS

HINTS AND TIPS:

Martin Phillips makes life easier for newcomers to the world of micros

FIRST BYTE:

What does 'communications' mean in relation to computers? Tessie Revivis has the answer

REVIEWS

GAMES:

Southern Belle from Hewson Consultants; *Aardvark's Frak!* and *Caveman's Capers* from ASL/Icon

THE TRUTH, THE WHOLE TRUTH:

Jeffery Pike wires himself up to Synergy Software's *Biogram*, and reports on biofeedback

HARDWARE/SOFTWARE:

Aleph One's Thermometer and *Scratchpad* from Innovative Software are put through their paces

MODEM ROUND-UP:

Jeff Ashurst brings you up-to-date on the latest developments in modems

DATACHAT DETAILS:

GEC's modem for home micros is reviewed by Jeff Ashurst

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Chris Steele praises *The Artist* graphics package for use with the Megamouse

HOLD THE FRONT PAGE:

Tony Quinn pits AMX *Pagemaker* against *Fleet Street Editor* in the publishing software stakes

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BROM+ from Clares and Promotional Art Work Systems' *Teletext Screen Control System*

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The latest craze in communications is micros talking to each other over the radio airwaves – packet radio. Tony Dennis tunes in



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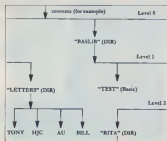
This software listing to link your micro and modem to Prestel and bulletin boards could save you pounds. By Graham Bartram



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Cover photograph by Barbara Bellingham

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Word puzzles – how to create and solve them on your micro
Beyond Mandelbrot:
Newton's equations produce more spectacular graphics
Your chance to voice your opinions in our reader survey

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FROM SCRATCH

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FOR ELECTRON

■ WIN A VIGLEN
WINCHESTER

**WORD
PUZZLES**

Joe Telford's
head scratchers

READER SURVEY

Answer back to
win a printer



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ISSUE No 48 JULY 1986

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Graham Bell's programs let you spool text in *View* and transfer data to other packages in the family

REGULARS

SPOLING INTO VIEW:

Graham Bell's programs let you spool text in *View* and transfer data to other packages in the family

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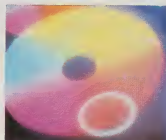


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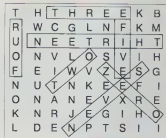
Acorn User's 12-page guide to the world of discs and disc drives – indispensable to both new and experienced users



WHERE'S THE WORD?

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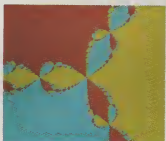
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Cover illustration by
Bob Lawrie

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MOVING PICTURES:

- How to animate a dodo!
- Kitchen Designer: software to plan your interiors
- Holiday slide shows: liven up your displays
- Hard copy: get the best from screen photography

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Picture power
from software



DODO TAKES OFF

Software to put the
impossible in motion

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Martin Phillips presents a standard set of printer codes and other goodies

FIRST BYTE:

Tessie Revivis makes machine code and assembly language easy

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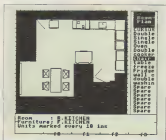
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Cover illustration by
Stuart Briers,
photograph by
Roger Phillips

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AMAZING!

Track down the treasure in our
maze game

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typefaces

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micro's memory

Master 512: Bruce Smith gets
under its lid

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memory barrier

PRINTERS:
Putting your
screens on paper

MICRO POWER:
32016 add-on
packs punch

TYPE DESIGNER:
Stylish letters
by numbers

MAZE GAME

Get out of this
one if you can!

50th ISSUE:
Free software
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ISSUE No 50 SEPTEMBER 1986

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First find the treasure – then find your way out of the maze with David Lawrence's addictive game



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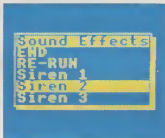
The 32016 second processor is a powerful tool for colleges and universities: review by Peter Voke



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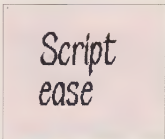
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Cover illustration by
John Clementson

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Amid all the rumours, we look at Acorn's future micro plans.

Spider curve plotter – for those awkward equations.

Wordprocessors for kids. The secrets of Viewspell.

Turtle treats: get the most out of Logo.

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SCHOOL FOCUS:

Logo, networks
and parents

SPIDER:

The ultimate
curve plotter



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ISSUE No 51 OCTOBER 1986

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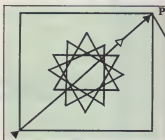
The Master Compact is Acorn's exciting new micro priced at only £399. Read our five-page in-depth assessment of it, starting on page 15



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Joe Telford extends the facilities of Logo's turtle graphics using the *Graphics Extension ROM* or the Master



ART TO ART CONVERSION

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Cover photograph by
John Barlow

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On the move: dual screens for smooth animation
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SUPER PLOTTER

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FEATURES

A COOL CALCULATOR

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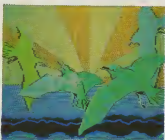
What are WIMPs? Joe Telford jots down some answers and presents a listing to give an on-screen calculator to prove his point



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Cover illustration by Jonathan Inglis, using the *Super-Plot* program presented in this issue

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Using View – start of a new series

Compact – personalising the software

The best games – round-up of the year

Red Boxes review – practical control in the home

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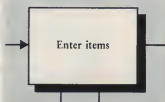


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BLOCKS FOR BUILDING

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Joe Telford jots down some simple functions and procedures which can be written into a limitless variety of programs



A NIGHTMARE BEGINS

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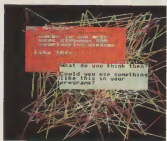
Mark de Weger has developed a fiendish platform game which can be modelled to your specifications — *Castle of Nightmares*



THROUGH THE WINDOWS

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David Lawrence shows how to design the increasingly popular windows into your programs



COMPACT COMPANION

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Continuing David Atherton's series on the Compact with programs to personalise the welcome disc for your own uses



A CLEARER VIEW

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The number of *View* users will rise further now that it comes with the Compact. Clive Williamson gives a guide



COVER



Cover illustration
by Edward Briant

NEXT MONTH

Kiddie Art introduces children to
computer graphics
Upgrade the Compact for
communication
The Scorpion board
Graphics for business